

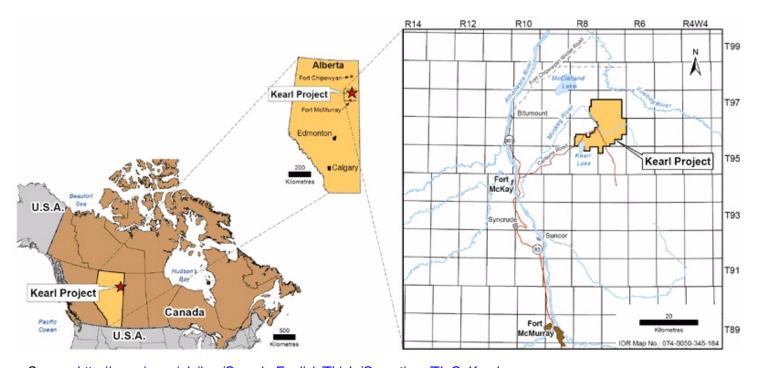
# **Kearl Oilsands Project**

Imperial Oil undertaking the largest project in its history

Michael Simms Crystal Roberts December 09

# **Summary**

Imperial Oil's Kearl Oil Sands Project is located 75 kilometers Northeast of Fort McMurray, Alberta. When completed, each of the projects in three phases will produce 110,000 barrels of oil per day (bopd), with an ultimate goal of reaching 354,000 bopd once all three production trains become operational. The project involves four pits that will be mined over the next fifty years. Opportunities exist for U.S. companies that are involved in oilfield services, heavy machinery and construction, pipelines, consulting, land reclamation or other related industries.



Source: <a href="http://www.imperialoil.ca/Canada-English/Thisls/Operations/TI\_O\_Kearl.asp">http://www.imperialoil.ca/Canada-English/Thisls/Operations/TI\_O\_Kearl.asp</a>

London, England based engineering firm Amec has been selected to oversee the first phase of the US\$7.7 billion project, and will be in charge of contracting engineering, procurement and construction management. Other major contractors include K2 Mining and Fluor. The first phase of the Kearl project is expected to create 1,100 - 1,300 jobs. Imperial Oil holds a 79% stake in the Kearl Project, with the remaining 21% owned by ExxonMobil Canada.

Imperial Oil has been in the energy business for over 125 years. They began with only a few wells in southwestern Ontario in 1880, and are now a multi-billion dollar player in the oil and gas industry.

Imperial Oil made the Leduc Oil discovery in 1947, a watershed event in Alberta's economic history that fueled Alberta's oil boom. Imperial Oil is headquartered in Calgary, Alberta, and is majority owned by ExxonMobil.

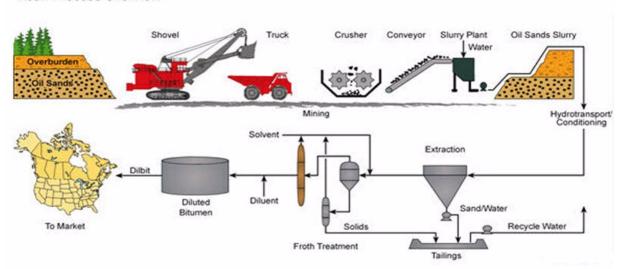
The majority of Canada's oil sands are located in northeastern Alberta, divided into the Athabasca, Cold Lake, and Peace River regions. It is estimated the Alberta's oil sands contain about 1.79 trillion barrels of bitumen, about 10% of which is recoverable with current technology. The total area of the oil sands is about 54,000 square miles, only a relatively small fraction, about 20%, can be developed from open pit mining methods. The remainder must be developed via *in-situ* technology, using drilling techniques. The Kearl Project will use an open pit mining method of extraction.

### **Market Overview**

Total expenditure on the first phase of the Kearl Project will amount to \$US7.7 billion. The details on phases two and three are still pending; however there is a possibility that phase three will involve the construction of a new bitumen upgrader. The amount of recoverable bitumen over the life of the project is estimated at about 4.6 billion barrels. Production will be underway by 2012, and is expected to span about 50 years.

The Kearl Project will employ the latest in technology including hydraulic shovels, trucks and double roll crushers. The process of converting bitumen to crude oil involves the extraction of raw ore from the site, which is then crushed and mixed with water. From there, it is fed through a pipeline to an extraction facility where the mixture is separated into diluted bitumen and tailings. The Kearl Project will not include any on-site upgrading, and the product will be shipped to market through third party pipeline systems.

#### **Kearl Process Overview**



Source: http://www.imperialoil.ca/Canada-English/ThisIs/Operations/TI\_O\_Kearl\_Facilities.asp

The Kearl Project will require additional related infrastructure including a water pipeline to allow water to be withdrawn from the Athabasca River, as well as water storage, roads, and power lines.

## Diluent:

Heavy oil from the oil sands is very viscous, and Northern Alberta's cold winters tend to compound this problem. Diluent is added to the bitumen (which is roughly the consistency of molasses or peanut butter) to decrease pumping and transportation costs. Diluents typically used for transporting bitumen include naphtha and condensate.

Inter Pipeline Inc. will be providing diluent to the Kearl Project. Imperial Oil has secured 60,000 barrels of diluent per day from the same pipeline that supplied the Athabasca Oil Sands project. Inter Pipeline will spend about \$US130 million over the next 3 years to connect the existing pipeline to diluent receipt points near Edmonton.

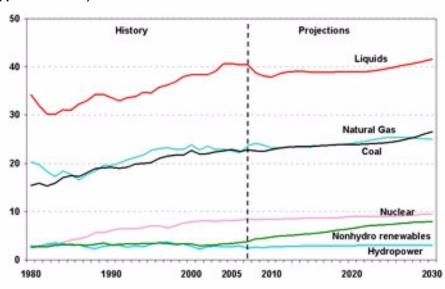
## Contracts awarded:

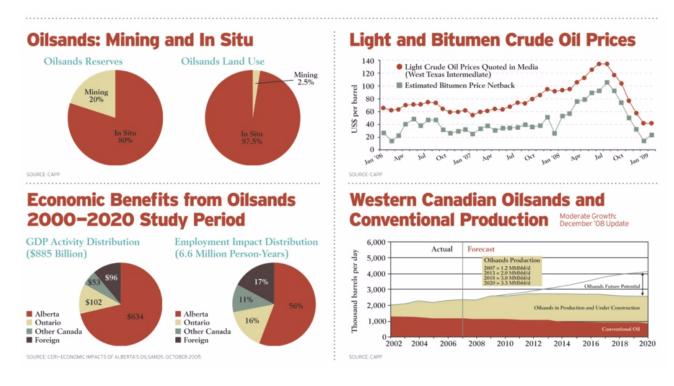
In June 2009, Imperial Oil and ExxonMobil awarded the contract for the transportation of blended bitumen to Enbridge Inc., which intends to fund the pipeline through internally generated cash flow. Babcock and Wilcox Canada has been contracted to supply the modularized boilers for the project, which will be manufactured in Ontario and Saskatchewan.

#### **Market Data**

Demand for Oil in North America is expected to be robust for the next several decades:

# U.S. Energy Consumption by Fuel (1980-2030) (quadrillion Btu)





Conventional oil production is projected to decline somewhat over the next several decades, and production from the oil sands is expected to contribute a larger share of Western Canada's oil production. The oil sands are expected to contribute US\$851 billion in GDP to the Canadian economy from 2000 to 2020, approximately two-thirds of which will occur in Alberta. Analysts say there is long term potential for U.S. companies that want to enter Canada's oil sands industry, and those that are in a position to do so will have better prospects for participation in future projects.

# **Best Prospects**

The Board of Imperial Oil approved the project and now the company is in talks with potential contractors. Imperial Oil has spent more than US\$770 million as of fall 2009.

Most of the subcontract work for the Kearl Project will be approved by Amec, K2 and Fluor. U.S. companies that are interested in pursuing opportunities with this project should do so through these companies. Opportunities exist for companies that are involved in oilfield services, heavy machinery and construction, pipelines, consulting, land reclamation or other related industries.

Kearl will be advertising opportunities for contractors and subcontractors via red link. Red links website, <a href="www.redlink.ca">www.redlink.ca</a>, has updated information on current opportunities. Amec is also preparing a list of local businesses that will be given to their major contractors. The contact information for the Procurement Manager for the Kearl project can be found in the **Resources and Contacts** section below.

# **Market Issues & Obstacles**

Issues surrounding the environmental impact of the oil sands have received international attention. Ecojustice, formerly known as the Sierra Legal Defense Fund, filed an application for judicial review of the joint Federal and Provincial review panel stating the environmental impact of the Kearl Project would be minimal. Broader issues relating to water and land use as well as carbon emissions are still ongoing. U.S. companies that specialize in environmental solutions and/or technology, particularly in the areas of land reclamation and water usage, should consider participation in this project.

# **Upcoming Events**

Global Petroleum show 2010, June 8<sup>th</sup> – 10<sup>th</sup> 2010, Stampede Park, Calgary Alberta http://www.buyusa.gov/canada/en/gps2010.html

Go-Expo, June 7<sup>th</sup> – 9<sup>th</sup> 2011, Stampede park Alberta www.gasandoilexpo.com

Oil Sands Trade Show & Conference, September 2010, Dates to be announced. www.oilsandstradeshow.com

#### **Resources & Contacts**

Amec: 10204 Centennial Drive Fort McMurray, Alberta T9H 1Y5 Canada

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http://www.amec.com/

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Kearl Oil Sands Project: link

Procurement Manager for Kearl, Peter Clarke:

Phone: (403) 237-2644 Email: peter.clarke@esso.ca

Redlink: www.redlink.ca

Canadian Association of Petroleum Producers: www.capp.ca

Petroleum Services Association of Canada: www.psac.ca

Industry Canada: www.ic.gc.ca

Energy Resources Conservation Board: <a href="https://www.ercb.ca">www.ercb.ca</a>

National Energy Board: www.neb.gc.ca

Mining Association of Canada: www.mining.ca

Canadian Energy Research Institute: www.ceri.ca

## **Citations**

Bentein, J. (2009). In Comes Kearl. Oilsands Review, 24-30.

(2007). Energy Statistics handbook. Statistics Canada.

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(2009). Kearl Oilsands Neighbour News. Calgary: Imperial Oil.

#### For More Information

The U.S. Commercial Service in Calgary, Alberta, Canada can be contacted via email at: Crystal.roberts@mail.doc.gov; Phone: 1 (403) 265-2116; Fax: 1 (403) 266-4743; or visit our website: www.buyusa.gov/canada

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